Complete Summary

GUIDELINE TITLE

End-of-life care in patients with lung cancer.

BIBLIOGRAPHIC SOURCE(S)

Griffin JP, Nelson JE, Koch KA, Niell HB, Ackerman TF, Thompson M, Cole FH Jr. End-of-life care in patients with lung cancer. Chest 2003 Jan;123(1 Suppl):312S-31S. [152 references] PubMed

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Lung cancer

GUIDELINE CATEGORY

Management

CLINICAL SPECIALTY

Critical Care
Family Practice
Internal Medicine
Nursing
Oncology
Pulmonary Medicine

INTENDED USERS

Health Care Providers
Nurses

Physicians
Psychologists/Non-physician Behavioral Health Clinicians
Social Workers

GUIDELINE OBJECTIVE(S)

To provide evidence-based practice guidelines for end-of-life care for patients with lung cancer

TARGET POPULATION

Lung cancer patients who are at the end of life

INTERVENTIONS AND PRACTICES CONSIDERED

1. Identification of primary caregiver and contact person who will coordinate care
2. Patient diagnosis and its meaning provided by an experienced clinician with contact person present
3. Education of physician to improve communication skills
4. Development and implementation of an end-of-life plan with defined goals including:
    - Congruence of treatment with patient goals and preferences
    - Management of symptoms and effective communication as an integral component of the diagnostic and treatment plan
    - Determination of whether the patient has a written advance directive; advice from hospital legal counsel or ethics committee regarding validity or interpretation of questionable directives
    - Hospice and/or palliative care services provided early on in order to achieve the best quality of life for patients and their families
    - Decision making about intensive care unit (ICU) treatment incorporated, including available knowledge about prognosis, including specific outcome prediction models to complement clinical judgment, and reasonably expected benefits of critical care against potential burdens, including distressing physical and psychological symptoms.
5. Ethics consultation by hospital ethics committee (HEC) in order to provide assistance regarding:
    - Clarifying applicable law and policy regarding patient autonomy and competence
    - Informed consent
    - Withholding of life-prolonging treatments
    - Surrogate preferences
    - Decision making for patients without family
    - Resource allocation
    - The interpretation of ethical norms regarding interpersonal conflicts among patients, families, and physicians

Practices not Recommended

Prolonged mechanical ventilation

MAJOR OUTCOMES CONSIDERED

Quality of life

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

As a first step in identifying the evidence for each topic, the guideline developers sought existing evidence syntheses including guidelines, systematic reviews, and meta-analyses. They searched computerized bibliographic databases including MEDLINE, Cancerlit, CINAHL and HealthStar, the Cochrane Collaboration Database of Abstracts of Reviews of Effectiveness, the National Guideline Clearinghouse, and the National Cancer Institute Physician Data Query database. Computerized searches through July 2001 used the MeSH terms lung neoplasms (exploded) and bronchial neoplasms or text searches for lung cancer combined with review articles, practice guidelines, guidelines, and meta-analyses. They also searched and included studies from the reference lists of review articles, and queried experts in the field. An international search was conducted of Web sites of provider organizations that were likely to have developed guidelines. Abstracts of candidate English language articles were reviewed by two physicians (one with methodological expertise and one with content area expertise) and a subset was selected for review in full text. Full-text articles were reviewed again by two physicians to determine whether they were original publications of a synthesis and were pertinent to at least one of the topics of the guideline. Articles described as practice guidelines, systematic reviews, or meta-analyses were included, as were review articles that included a "Methods" section. Included articles were classified according to topic.

Strategy Specific for End-of-life Care

A comprehensive search covering the past five years of English-language medical literature for practice guidelines on end-of-life care for patients with lung cancer has revealed only specific contributions from the United Kingdom. These guidelines, while comprehensive for their National Health Service, are difficult to apply in medical practice in the United States but are listed in the original guideline for consideration.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Expert Consensus
Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

The United States Preventive Services Task Force (USPSTF) scheme offers general guidelines to assign one of the following grades of evidence: good, fair, or poor. In general, good evidence included prospective, controlled, randomized clinical trials, and poor evidence included case series and clinical experience. Trials with fair quality of evidence, for instance, historically controlled trials or retrospective analyses, were somewhere in between. In addition to the strength of the study design, however, study quality also was considered. The United States Preventive Services Task Force approach considers well-recognized criteria in rating the quality of individual studies for a variety of different types of study design (e.g., diagnostic accuracy studies and case-control studies). The thresholds for distinguishing good vs fair and fair vs poor evidence are not explicit but are left to the judgment of panelists, reviewers, and members of the executive committee.

Assessment of the Scope and Quality of Clinical Practice Guidelines

Clinical practice guidelines identified from the systematic search were evaluated by at least four reviewers using the Appraisal of Guidelines for Research and Evaluation (AGREE) instrument.

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Informal Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Each writing committee received a comprehensive list of existing systematic reviews and meta-analyses as well as guidelines published by other groups. In addition, for five key topics (prevention, screening, diagnosis, and staging [invasive and noninvasive]), new systematic reviews were undertaken (see "Description of Methods Used to Collect the Evidence" and "Description of Methods Used to Analyze the Evidence" fields). For all other topics, writing committees were responsible for identifying and interpreting studies that were not otherwise covered in existing syntheses or guidelines.

The guidelines developed by the writing committee were distributed to the entire expert panel, and comments were solicited in advance of a meeting. During the meeting, proposed recommendations were reviewed, discussed, and voted on by

the entire panel. Approval required consensus, which was defined as an overwhelming majority approval. Differences of opinion were accommodated by revising the proposed recommendation, the rationale, or the grade until consensus could be reached. The evidence supporting each recommendation was summarized, and recommendations were graded as described. The assessments of level of evidence, net benefit, and grade of recommendation were reviewed by the executive committee.

Values

The panel considered data on functional status, quality and length of life, tolerability of treatment, and relief of symptoms in formulating guideline recommendations. Cost was not explicitly considered in the guideline development process. Data on these outcomes were informally weighted, without the use of explicit decision analysis or other modeling. The values placed on types of outcomes varied with clinical scenarios. For example, in some situations they considered life expectancy, such as the effects of early detection. In other situations they weighed quality of life more heavily, such as in palliative care and in interpreting small increases in life expectancy with chemotherapy for stage IV disease.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

The guideline developer´s grading scheme is a modification of the United States Preventive Services Task Force (USPSTF) grades to allow recommendations for a service when (1) evidence is poor, (2) the assessment of the net benefit is moderate to high, and (3) there is consensus among the expert panel to recommend it. This change was necessary because, unlike preventive services (i.e., the routine offering of tests or treatments to well people) in which the burden of proof is high, clinical decisions about the treatment of patients with lung cancer often must be based on an interpretation of the available evidence, even if it is of poor quality. This adaptation distinguished between interventions with poor evidence for which there is consensus (grade C) and interventions with poor evidence for which there is not consensus (grade I).

Grades of Recommendations and Estimates of Net Benefit

The grade of the strength of recommendations is based on both the quality of the evidence and the net benefit of the service (i.e., test, procedure, etc).

Grade A The panel strongly recommends that clinicians routinely provide [the service] to eligible patients. An "A" recommendation indicates good evidence that [the service] improves important health outcomes and that benefits substantially outweigh harms.

Grade B The panel recommends that clinicians routinely provide [the service] to eligible patients. A "B" recommendation indicates at least fair evidence that [the service] improves important health outcomes and concludes that benefits outweigh harms.

Grade C The panel recommends that clinicians routinely provide [the service] to eligible patients. A "C" recommendation indicates that there was consensus among the panel to recommend [the service] but that the evidence that [the service] is effective is lacking, of poor quality, or conflicting, or the balance of benefits and harms cannot be reliably determined from available evidence.

Grade D The panel recommends against clinicians routinely providing [the service]. A "D" recommendation indicates at least fair evidence that [the service] is ineffective or that harm outweighs benefit.

Grade I The panel concludes that the evidence is insufficient to recommend for or against [the service]. An "I" recommendation indicates that evidence that [the service] is effective is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined, and that the panel lacked a consensus to recommend it.

Net Benefit

The levels of net benefit are based on clinical assessment. Estimated net benefit may be downgraded based on uncertainty in estimates of benefits and harms.

Substantial Benefit: Benefit greatly outweighs harm

Moderate Benefit: Benefit outweighs harm

Small/weak Benefit: Benefit outweighs harm to a minimally clinically important degree

None/negative Benefit: Harms equal or outweigh benefit, less than clinically important

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

After extensive review within the expert panel and executive committee, the guidelines were reviewed and approved by the American College of Chest Physicians (ACCP) Health and Science Policy Committee and then by the American College of Chest Physicians Board of Regents.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Each recommendation is rated based on the levels of evidence (good, fair, poor), net benefit (substantial, moderate, small/weak, none/negative), and the grades of the recommendations (A, B, C, D, I). Definitions are presented at the end of the "Major Recommendations" field.

1. For patients with lung cancer at the end of life, it is recommended that clinicians increase their focus on the patient´s experience of illness to improve congruence of treatment with patient goals and preferences: (a) be realistic, practical, sensitive, and compassionate; (b) listen; (c) allow/invite the patient to express his or her reaction to the situation; (d) provide a contact person; (e) and continually reassess the patient´s goals of therapy as part of treatment planning. Evidence: poor; benefit: substantial; grade of recommendation: C
2. For all patients with lung cancer, end-of-life planning should be integrated as a component of assessment of goals of treatment and treatment planning. Evidence: poor; benefit: substantial; grade of recommendation: C
3. For patients with lung cancer, an experienced clinician should inform the patient of the diagnosis and its meaning. The day-to-day contact person should also be present at this meeting and should coordinate care. Evidence: poor; benefit: substantial; grade of recommendation: C
4. Clinicians treating patients with lung cancer should avail themselves of the increasing body of educational resources to improve communication at the end of life. Evidence: fair; benefit: substantial; grade of recommendation: B
5. With patients with lung cancer, hospice and/or the palliative care service should be involved early in the patient´s treatment, as part of the team. Evidence: poor; benefit: substantial; grade of recommendation: C
6. Each patient with lung cancer should be asked if he or she has an advance directive, and the clinician should assume responsibility for placing it in the chart. Evidence: poor; benefit: substantial; grade of recommendation: C
7. With patients for whom there are questions about the validity or interpretation of an advance directive, seek guidance from the hospital legal counsel or ethics committee. Evidence: poor; benefit: substantial; grade of recommendation: C
8. In making end-of-life decisions for patients with lung cancer, ethics consultation by hospital ethics committees (HECs) should be requested when assistance is needed in clarifying applicable law and policy related to patient autonomy and competence, informed consent, withholding life-prolonging treatments, surrogate preferences, decision making for patients without family, and resource allocation, as well as determining how ethical norms should be interpreted, or negotiating interpersonal conflicts among patients, families, and physicians. Evidence: poor; benefit: substantial; grade of recommendation: C
9. In end-of-life care for patients with lung cancer, given the potential variations in ethics consultations, the requesting party and the consultant should clarify beforehand the specific objectives of the consultation, the selection of the participants, the process to be used in deliberation or negotiation, and the manner in which results will be disclosed and recorded. Evidence: poor; benefit: substantial; grade of recommendation: C
10. For the patient with lung cancer, decision making about intensive care unit (ICU) treatment should incorporate available knowledge about prognosis, including the use of a cancer-specific outcome prediction model to

complement clinical judgment, and weigh reasonably expected benefits of critical care against potential burdens, including distressing physical and psychological symptoms. Evidence: poor; benefit: substantial; grade of recommendation: C

11. In the inoperable or unresectable patient with lung cancer, prolonged mechanical ventilation is discouraged in view of dismal reported outcomes. Evidence: fair; benefit: small; grade of recommendation: C
12. In the critically ill patient with lung cancer, palliative care, including expert management of symptoms and effective communication about appropriate goals of treatment, should not be postponed until death is imminent, but should be an integral component of the diagnostic and treatment plan for all patients, including those still pursuing life-prolonging therapies as well as those more obviously at the end of life. Evidence: poor; benefit: substantial; grade of recommendation: C
13. For patients with lung cancer at the end of life, the goal of palliative care should be to achieve the best quality of life for the patients and their families. Evidence: poor; benefit: Substantial; grade of recommendation: C
14. In patients with lung cancer receiving hospice care, end-of-life management needs to be considered part of the longitudinal care of these patients. Evidence: fair; benefit: substantial; grade of recommendation: B
15. At the end of life in patients with lung cancer, multimodality palliative care teams should be developed and encouraged to participate in patient management. Evidence: fair; benefit: substantial; grade of recommendation: B

Definitions:

Levels of Evidence

In general, good evidence included prospective, controlled, randomized clinical trials, and poor evidence included case series and clinical experience. Trials with fair quality of evidence, for instance, historically controlled trials or retrospective analyses, were somewhere in between.

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service] is effective is lacking, of poor quality, or conflicting, or the balance of benefits and harms cannot be reliably determined from available evidence.

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None/negative Benefit: Harms equal or outweigh benefit, less than clinically important

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations").

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Improved quality of life for patients with lung cancer at the end of life

POTENTIAL HARMS

Not stated

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

1. The American College of Chest Physicians (ACCP) is developing a set of PowerPoint slide presentations for physicians to download and use for physician and allied health practitioners education programs.
2. The ACCP is developing a Quick Reference Guide (QRG) in print and PDA formats for easy reference.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

End of Life Care

IOM DOMAIN

Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Griffin JP, Nelson JE, Koch KA, Niell HB, Ackerman TF, Thompson M, Cole FH Jr. End-of-life care in patients with lung cancer. Chest 2003 Jan;123(1 Suppl):312S-31S. [152 references] PubMed

ADAPTATION

Not applicable: Guideline was not adapted from another source.

DATE RELEASED

2003 Jan

GUIDELINE DEVELOPER(S)

American College of Chest Physicians - Medical Specialty Society

GUIDELINE DEVELOPER COMMENT

The guideline development panel was composed of members and nonmembers of the American College of Chest Physicians (ACCP) who were known to have expertise in various areas of lung cancer management and care, representing multiple specialties from the following 13 national and international medical associations:

- Alliance for Lung Cancer Advocacy, Support, and Education (a patient support group)
- American Association for Bronchology
- American Cancer Society
- American College of Physicians
- American College of Surgeons Oncology Group
- American Society of Clinical Oncology
- American Society for Therapeutic Radiology and Oncology
- American Thoracic Society
- Association of Community Cancer Centers
- Canadian Thoracic Society
- National Comprehensive Cancer Network
- Oncology Nurses Society
- Society of Thoracic Surgeons

The specialties included pulmonary/respiratory medicine, critical care, medical oncology, thoracic surgery, radiation oncology, epidemiology, law, and medical ethics.

SOURCE(S) OF FUNDING

Funding for both the evidence reviews and guideline development was provided through an unrestricted educational grant from Bristol-Myers Squibb, which had no other role in the evidence review or guideline development process or content.

GUIDELINE COMMITTEE

American College of Chest Physicians (ACCP) Expert Panel on Lung Cancer Guidelines

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Primary Authors: John P. Griffin, MD, FCCP; Judith E. Nelson, MD, JD, FCCP; Kathryn A. Koch, MD, FCCP; Harvey B. Niell, MD; Terrence F. Ackerman, PhD; Melinda Thompson, MD, JD; F. Hammond Cole, Jr., MD, FCCP

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Information about potential conflicts of interest were collected from each member of the expert panel or writing committee at the time of their nomination in accordance with the policy of the American College of Chest Physicians. Information on conflicts of interest for each panelist is listed in the guideline.

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available to subscribers of Chest - The Cardiopulmonary and Critical Care Journal.

Print copies: Available from the American College of Chest Physicians, Products and Registration Division, 3300 Dundee Road, Northbrook IL 60062-2348.

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

Background Articles

- Alberts WM. Lung cancer guidelines. Introduction. Chest 2003 Jan;123(1 Suppl):1S-2S
- McCrory DC, Colice GL, Lewis SZ, Alberts WM, Parker S. Overview of methodology for lung cancer evidence review and guideline development. Chest 2003 Jan;123(1 Suppl):3S-6S.
- Harpole LH, Kelley MJ, Schreiber G, Toloza EM, Kolimaga J, McCrory DC. Assessment of the scope and quality of clinical practice guidelines in lung cancer. Chest 2003 Jan;123(1 Suppl):7S-20S.
- Alberg AJ, Samet JM. Epidemiology of lung cancer. Chest 2003 Jan;123(1 Suppl):21S-49S.

Electronic copies: Available to subscribers of Chest - The Cardiopulmonary and Critical Care Journal.

Print copies: Available from the American College of Chest Physicians, Products and Registration Division, 3300 Dundee Road, Northbrook IL 60062-2348.

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI on September 3, 2003. The information was verified by the guideline developer on October 1, 2003.

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